GET A BATTERY THAT LASTS LONG, REALLY LONG



AMARON®

LASTS LONG, REALLY LONG.

INTRODUCTION

Amaron has firmly established itself as a distinguished force within the global automotive battery sector, renowned for its cutting edge and reliable battery solutions that resonate with a diverse and widespread audience. Amaron's high performance products, trusted by car owners worldwide, exemplify enduring strength and consistent power. Amaron's utilization of state of the art technology ensures not only smooth vehicle starts but also optimal operational efficiency. This technological prowess positions Amaron as the preferred choice among discerning drivers on a truly international scale.

Amara Raja Energy Mobility Limited, formerly known as Amara Raja Batteries Ltd, plays a pivotal role as a technological trailblazer within the esteemed Amara Raja Group. As a leading manufacturer of lead acid batteries, Amaron caters comprehensively to the diverse needs of both the industrial and automotive sectors in India's dynamic storage battery industry. Going beyond national borders, Amaron's industrial and automotive batteries have found homes in over 55 countries worldwide, cementing the company's status as a key player on the global stage. This global reach underscores Amaron's unwavering commitment to deliver top tier solutions that captivate audiences around the world.



*Modification of the catalogue is not permitted

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MILESTONES

1985 – Amara Raja Batteries Ltd established at Tirupati, Andhra Pradesh, India

2000 – Introduced Amaron Automotive Batteries

2004 – Introduced PRO & GO range

2007 – Introduced FLO range

2008 – First to introduce 2W AGM Batteries in India

2015 – Inaugurated Amara Raja Growth Corridor (ARGC) at Chittoor, Andhra Pradesh, India

2019 – Introduced EFB Start Stop Batteries

2022 – Introduced AGM Batteries (JADE)

2023 – Launch of PEARL Marine Deep Cycle Batteries

2023 – Amara Raja Batteries Ltd name changed in Amara Raja Energy & Mobility Ltd

2024 – Introducing AGM Auxiliary and Lawn & Garden Battery

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PASSENGER CAR BATTERIES



ADD FORCE TO YOUR FOUR-WHEELER

In the fusion of our daily automotive experiences, cars seamlessly integrate into our lives, offering a sense of comfort and connection. The key to unlocking the ultimate driving comfort lies in a powerful start. This unparalleled experience is made possible only with a hi-cranking power battery, the heartbeat of your vehicle. Elevating this experience to new heights is the unmatched performance of Amaron automotive batteries, where every ignition is not merely a mechanical start but a symphony of power and precision.

Engineered with a meticulous focus on high heat tolerance, Amaron automotive batteries stand as beacons of reliability in the face of challenging conditions. What sets us apart is the ground-breaking ASG Duraframe technology, ensuring not just a powerful start but sustained power and an extended cyclic life. In the realm of automotive batteries, Amaron emerges as the standard-bearer of excellence, where every turn of the key is a testament to our commitment to superior performance. Since our inception in 2000, Amaron has consistently elevated the driving experience, earning unwavering customer satisfaction and loyalty across the expansive landscape of rural, semi-urban, and urban markets pan India and Global markets. Welcome to a journey where technology meets trust, and every start is a testament to Amaron's enduring excellence.

DURAFRAME SLI BATTERY CONSTRUCTION

BIC Vent

Superior design with Built in Vent Seal, Flame Arrestor and Improved Gas Exit Profile - prevents acid spewing during Recharge and Improved Safety feature. Superior Drain- Back design supports zero maintenance



Cast on Strap

The wide cast-on strap supports better conductivity and allows for more current, resulting in faster cranking

Positive Grid Design

Radial grid design facilitates quick current flow and offers high heat tolerance, with the advanced paste recipe in the grid enhancing corrosion resistance for increased durability.

PE Separator

High Performance robust PE separator – lowering internal resistance and higher CCA

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SLI BATTERIES WITH DURAFRAME TECHNOLOGY



WHAT POWERS OUR BATTERIES!

AMARON with ASG DuraFrame™ Technology

Batteries with the break-through ASG (Advanced Stamped Grid) DuraFrame technology are built with punched plate making process for excellent conductivity and optimum construction.

This ensures superior battery performance with longer life in all type of passenger vehicles.

ADVANTAGES OF DURAFRAME TECHNOLOGY

- Higher cranking performance
- Low self discharge
- Optimized weight to performance
- Consistence in battery performance
- Higher cyclical life (Longer life)



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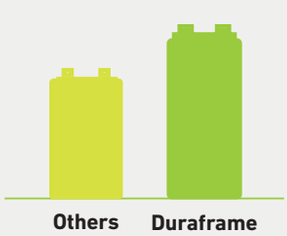
SLI DURAFRAME SERIES



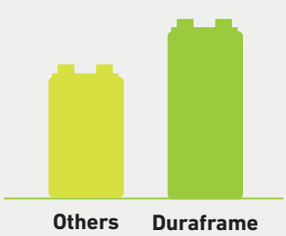
Battery	ASG DuraFrame	Applications	Consumers	Cold Cranking Amps
PRO	✓	All premium vehicles with high power needs		+++
FLO	✓	All standard vehicles with medium power needs		++
GO	✓	All standard vehicles with basic power needs		+

DURAFRAME TECHNOLOGY DESIGN AND FEATURES

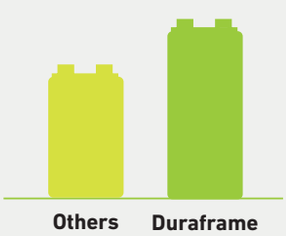
Rolling
Enhanced corrosion resistance
Better mechanical strength
Longer life



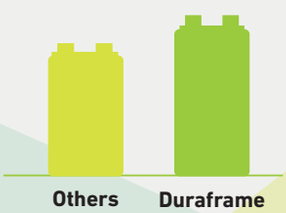
Stamping & Coining
Improved grid to active mass adhesion
Superior vibration resistance



Grid Design
Optimized shape
50% Enhanced conductivity
Enhanced CCA



Alloy
High Tin Calcium alloy advanced paste recipe for superior conductivity
Increased charge acceptance



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DATA SHEET

AMARON PRO

ALL-NEW

DURA FRAME

ADVANCED STAMPED GRID

Battery Model	OLD JIS Designation	Ref. AH @ C20	CCA @ -18°C Amps(SAE)	RC in mins	Assembly Layout	L (mm)	B (mm)	H (mm)	Terminal	Case Type	Hold Down
50B19R		40	370	55		187	127	227	T1	B19	B0
50B19L		40	370	55		187	127	227	T1	B19	B0
65B24R	NX100-S6PMF	50	420	80		238	129	227	T1	B24	B0
65B24L	NX100-S6LPMF	50	420	80		238	129	227	T1	B24	B0
65B24RS	NX100-S6PMF	50	420	80		238	129	227	T2	B24	B0
65B24LS	NX100-S6LPMF	50	420	80		238	129	227	T2	B24	B0
90D23R		65	560	114		232	173	225	T2	D23	B0
BH90D23R		65	560	114		232	173	225	T2	D23	B13
90D23L		65	560	114		232	173	225	T2	D23	B0
BH90D23L		65	560	114		232	173	225	T2	D23	B13
100D26R	NX110-5MF	70	620	128		260	173	225	T2	D26	B0
BH100D26R	NX110-5MF	70	620	128		260	173	225	T2	D26	B13
100D26L	NX110-5LMF	70	620	128		260	173	225	T2	D26	B0
BH100D26L	NX110-5+ C35LMF	70	620	128		260	173	225	T2	D26	B13
110D26R		80	670	150		260	173	225	T2	D26	B0
BH110D26R		80	670	150		260	173	225	T2	D26	B13
110D26L		80	670	150		260	173	225	T2	D26	B0
BH110D26L		80	670	150		260	173	225	T2	D26	B13
125D31R		95	775	165		306	173	225	T2	D31	B0
BH125D31R		95	775	165		306	173	225	T2	D31	B13
125D31L		95	775	165		306	173	225	T2	D31	B0
BH125D31L		95	775	165		306	173	225	T2	D31	B13

AMARON®

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DATA SHEET

AMARON PRO DIN

ALL-NEW

DURA FRAME

ADVANCED STAMPED GRID

Battery Model	OLD JIS Designation	Ref. AH @ C20	CCA @ -18°C Amps(EN)	RC in mins	Assembly Layout	L (mm)	B (mm)	H (mm)	Terminal	Case Type	Hold Down
DIN 45	545106036	45	365	76		207	175	175	T2	LB1/T4	B13
DIN 50	550154045	50	450	86		207	175	190	T2	LN1/H4	B13
DIN 55	555112050	55	500	103		242	175	190	T2	LN2/H5	B13
DIN 55R	555111050	55	500	103		242	175	190	T2	LN2/H5	B13
DIN 55	555155050	55	500	95		242	175	175	T2	LB2/T5	B13
DIN 60	560170055	60	550	109		242	175	175	T2	LB2/T5	B13
DIN 60		60	550	109		242	175	190	T2	LN2/H5	B13
DIN 60R		60	550	105		242	175	190	T2	LN2/H5	B13
DIN 65	565106590	65	590	115		278	175	175	T2	LB3/T6	B13
DIN 66	566112061	66	610	121		242	175	190	T2	LN2/H5	B13
DIN 66R	566111061	66	610	121		242	175	190	T2	LN2/H5	B13
DIN 74	574102069	74	690	131		278	175	190	T2	LN3/H6	B13
DIN 74R	574103069	74	690	131		278	175	190	T2	LN3/H6	B13
DIN 80	580122073	80	730	143		315	175	175	T2	LB4/T7	B13
DIN 90	590109080	90	800	162		353	175	190	T2	LN5/H8	B13
DIN 100	600109090	100	900	181		353	175	190	T2	LN5/H8	B13



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DATA SHEET

AMARON FLO

ALL-NEW

DURA FRAME

ADVANCED STAMPED GRID

Battery Model	OLD JIS Designation	Ref. AH @ C20	CCA @ -18°C Amps(SAE)	RC in mins	Assembly Layout	L (mm)	B (mm)	H (mm)	Terminal	Case Type	Hold Down
46B19R		35	330	52		187	127	227	T1	B19	B0
46B19L		35	330	52		187	127	227	T1	B19	B0
42B20R	NS40ZMF	35	335	55		197	129	227	T1	B20	B0
BH42B20R	NS40ZMF	35	335	55		197	129	227	T1	B20	B0
42B20L	NS40ZLMF	35	335	55		197	129	227	T1	B20	B0
BH42B20L	NS40ZLMF	35	335	55		197	129	227	T1	B20	B0
42B20RS	NS40ZSMF	35	335	55		197	129	227	T2	B20	B0
42B20LS	NS40ZLSMF	35	335	55		197	129	227	T2	B20	B0
55B24R	NS60PMF	45	380	75		238	129	227	T1	B24	B0
55B24L	NS60LPMF	45	380	75		238	129	227	T1	B24	B0
55B24RS	NS60SPMF	45	380	75		238	129	227	T2	B24	B0
55B24LS	NS60LSPMF	45	380	75		238	129	227	T2	B24	B0
70D20R		45	420	100		202	173	225	T2	D20	B0
BH70D20R		45	420	100		202	173	225	T2	D20	B13
70D20L		45	420	100		202	173	225	T2	D20	B0
BH70D20L		45	420	100		202	173	225	T2	D20	B13
85D23R	85BR60K	60	550	110		232	173	225	T2	D23	B0
BH85D23R	85BR60K	60	550	110		232	173	225	T2	D23	B13
85D23L	85B60K	60	550	110		232	173	225	T2	D23	B0
BH85D23L	85B60K	60	550	110		232	173	225	T2	D23	B13
65D26R	N50PMF	50	420	90		260	173	225	T2	D26	B0

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DATA SHEET

AMARON FLO

ALL-NEW DURA FRAME ADVANCED STAMPED GRID

Battery Model	OLD JIS Designation	Ref. AH @ C20	CCA @ -18°C Amps(SAE)	RC in mins	Assembly Layout	L (mm)	B (mm)	H (mm)	Terminal	Case Type	Hold Down
BH65D26R	N50PMF	50	420	90		260	173	225	T2	D26	B13
65D26L	N50LPMF	50	420	90		260	173	225	T2	D26	B0
BH65D26L	N50LPMF	50	420	90		260	173	225	T2	D26	B13
80D26R	N50ZPMF	60	500	110		260	173	225	T2	D26	B0
BH80D26R	N50ZPMF	60	500	110		260	173	225	T2	D26	B13
80D26L	N50ZLPMF	60	500	110		260	173	225	T2	D26	B0
BH80D26L	N50ZLPMF	60	500	110		260	173	225	T2	D26	B13
95D26R	NS70MF	65	600	115		260	173	225	T2	D26	B0
BH95D26R	NS70MF	65	600	115		260	173	225	T2	D26	B13
95D26L	NS70LMF	65	600	115		260	173	225	T2	D26	B0
BH95D26L	NS70LMF	65	600	115		260	173	225	T2	D26	B13
105D31R	NX120-7MF	80	670	160		306	173	225	T2	D31	B0
BH105D31R	NX120-7MF	80	670	160		306	173	225	T2	D31	B13
105D31L	NX120-7LPMF	80	670	160		306	173	225	T2	D31	B0
BH105D31L	NX120-7LPMF	80	670	160		306	173	225	T2	D31	B13
115D31R		90	750	160		306	173	225	T2	D31	B0
BH115D31R		90	750	160		306	173	225	T2	D31	B13
115D31L		90	750	160		306	173	225	T2	D31	B0
BH115D31L		90	750	160		306	173	225	T2	D31	B13
GR65-72		75	700	150		260	173	225	T2	D26	B13

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DATA SHEET

AMARON GO

ALL-NEW DURA FRAME ADVANCED STAMPED GRID

Battery Model	OLD JIS Designation	Ref. AH @ C20	CCA @ -18°C Amps(mm)	RC in mins	Assembly Layout	L (mm)	B (mm)	H (mm)	Terminal	Case Type	Hold Down
34B19R		32	240	38		187	129	227	T1	B19	B0
34B19L		32	240	38		187	129	227	T1	B19	B0
38B20R		35	265	43		197	129	227	T1	B20	B0
38B20L		35	265	43		197	129	227	T1	B20	B0
46B24R		45	295	56		238	129	227	T1	B24	B0
46B24L		45	295	56		238	129	227	T1	B24	B0
46B24RS		45	295	56		238	129	227	T2	B24	B0
46B24LS		45	295	56		238	129	227	T2	B24	B0
55D23R		60	320	74		232	173	225	T2	D23	B0
BH55D23R		60	320	74		232	173	225	T2	D23	B13
55D23L		60	320	74		232	173	225	T2	D23	B0
BH55D23L		60	320	74		232	173	225	T2	D23	B13
75D26R		60	450	98		260	173	225	T2	D26	B0
BH75D26R		60	450	98		260	173	225	T2	D26	B13
75D26L		60	450	98		260	173	225	T2	D26	B0
BH75D26L		60	450	98		260	173	225	T2	D26	B13
95D31R	N70PMF	70	600	125		306	173	225	T2	D31	B0
BH95D31R	N70PMF	70	600	125		306	173	225	T2	D31	B13
95D31L	N70PLPMF	70	600	125		306	173	225	T2	D31	B0
BH95D31L	N70LPMF	70	600	125		306	173	225	T2	D31	B13

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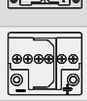
DATA SHEET

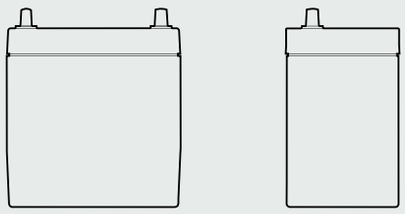
AMARON GO DIN

ALL-NEW
DURA FRAME
ADVANCED STAMPED GRID

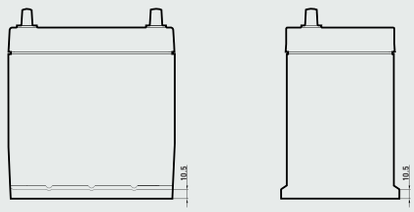
Battery Model	OLD JIS Designation	Ref. AH @ C20	CCA @ -18°C Amps(EN)	RC in mins	Assembly Layout	L (mm)	B (mm)	H (mm)	Terminal	Case Type	Hold Down
LN0-DIN 42		42	390	60		175	175	190	T2	LN0/H3	B13
LN1-DIN 50		50	400	80		207	175	190	T2	LN1/H4	B13
LN2-DIN 55		55	430	90		242	175	190	T2	LN2/H5	B13
LN2-DIN 55R		55	430	90		242	175	190	T2	LN2/H5	B13
LN2-DIN 60		60	500	100		242	175	190	T2	LN2/H5	B13
LN2-DIN 60R		60	500	100		242	175	190	T2	LN2/H5	B13
LN2-DIN 66		66	530	105		242	175	190	T2	LN2/H5	B13
LN3-DIN 74		74	600	115		278	175	190	T2	LN3/H6	B13
LN4-DIN 80		80	650	125		315	175	190	T2	LN4/H7	B13
LN5-DIN 90		90	725	140		353	175	190	T2	LN5/H8	B13
LN5-DIN 100		100	825	160		353	175	190	T2	LN5/H8	B13
T4-DIN 45		45	330	73		207	175	175	T2	LB1/T4	B13
T5-DIN 55		55	430	85		242	175	175	T2	LB2/T5	B13
T5-DIN 60		60	500	95		242	175	190	T2	LB2/T5	B13
T6-DIN 65		65	540	100		278	175	175	T2	LB3/T6	B13
T7-DIN 80		80	650	130		315	175	175	T2	LB4/T7	B13



HOLD DOWN AND CONTAINER FEATURES

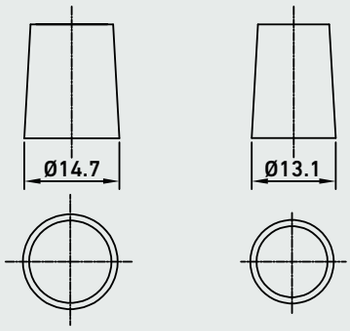


B0-NORMAL



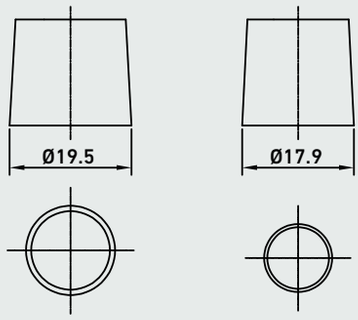
B13-BOTTOM HOLD

TERMINAL TYPE



Positive Terminal Negative Terminal

T-1



Positive Terminal Negative Terminal

T-2



WORLD SCALE MANUFACTURING PLANTS











AGM/EFB

ADVANCEMENT OF BATTERY TECHNOLOGY FOR HYBRID VEHICLES

Governments are continually updating emission regulations to curb pollution, compelling automobile manufacturers to confront the challenges of compliance. These regulatory pressures have driven technical research, resulting in significant advancements in both engine and battery technologies. As a consequence, a new generation of hybrid vehicles has emerged, spanning from compact mini and micro hybrids to advanced hybrid models, featuring innovative idle-stop-start systems.

The advantages of these advancements are manifold:

Emission Reduction: The implementation of hybrid technology has led to a substantial reduction in emission particles, contributing to cleaner air and a more sustainable environment.

Fuel Efficiency: Hybrid vehicles harness the power of multiple engine stops and starts, resulting in noteworthy fuel savings. This not only benefits consumers by reducing their fuel expenses but also helps in minimizing the overall carbon footprint.

To meet the stringent emission standards, battery technology has seen remarkable progress. This progress has resulted in the development of Enhanced Flooded Batteries (EFB) for entry-level hybrid vehicles and Absorbent Glass Mat (AGM) batteries for advanced hybrid models. These advanced batteries are pivotal in enhancing the performance and efficiency of hybrid vehicles while also meeting the demanding requirements of modern emission standards.



AGM/EFB
EFFICIENCY AND INNOVATION

HOW AUTOMATIC START-STOP SYSTEMS AND REGENERATIVE BREAKING SYSTEM ARE CHANGING THE FUTURE OF VEHICLE TECHNOLOGY

- **Automatic start-stop system function:**

  Detects when the car is stationary

  Based on sensors, determines various factors about the car's operating mode

  Stops the engine when the car is stationary and in neutral or when speed falls below a certain value

  Electrical systems are still powered by the vehicle's battery when the engine is off

  Engine restarts when the clutch is actuated or the brake is released (for automatic/dual-clutch transmission vehicles)

- **Sensors involved in the automatic start-stop system:**

  Neutral Gear Sensor

  Wheel Speed Sensor

  Crankshaft Sensor

  Electronic Battery Sensor (EBS)

- **Components of the starter unit are reinforced to handle the increased number of starts**

- **Batteries for automatic start-stop systems:**

  AGM (Absorbent Glass Mat) batteries are designed for vehicles with start-stop and Regenerative Breaking systems

  AGM batteries can efficiently accept energy generated through Regenerative Breaking System

  EFB (Enhanced Flooded Battery) batteries are for entry-level start-stop systems

- **Regenerative Breaking System (generation of electricity from braking energy):**

  Electrical energy is generated when the vehicle brakes, and the engine goes into thrust mode

  The recovered energy is fed back into the battery for use during stop phases

  AGM batteries are essential for efficient Regenerative Breaking System

  Some vehicles decouple the generator during acceleration phases to improve efficiency and use the battery to power electrical functions

ISS VS CONVENTIONAL VEHICLES

Feature	Advanced Hybrid ISS Vehicle	Conventional Non ISS Vehicle
Powertrain	Uses an internal combustion engine (ICE) and one or more electric motors to power the vehicle	Uses an ICE only to power the vehicle
Battery	High-capacity battery that can be recharged by the ICE, electric motors, and regenerative braking	Smaller battery that is used to start the engine and run electrical accessories
Fuel economy	Typically achieves better fuel economy than conventional vehicles due to the use of electric motors	Fuel economy depends on the size and efficiency of the engine, as well as the driving conditions
Emissions	Produces fewer emissions than conventional vehicles due to the use of electric motors	Emissions depend on the size and efficiency of the engine, as well as the driving conditions
Charging system	Optimizes for AGM batteries	Not optimized for AGM batteries

Operating Mode	Advanced Hybrid Vehicle
Electric-only mode	The vehicle is powered by the electric motors and the ICE is turned off. This is typically the most fuel-efficient mode and produces the lowest emissions.
Hybrid mode	The ICE and electric motors work together to power the vehicle. This mode is typically used when the vehicle needs more power, such as when accelerating or driving uphill.
Engine-only mode	The ICE is the only source of power for the vehicle. This mode is typically used when the vehicle is travelling at high speeds or when the battery is depleted.



AMARON®
LASTS LONG, REALLY LONG.

CARS HAVE MORE POWER DEMAND AND WE HAVE SOLUTIONS FOR THAT

When it comes to battery power, cars can be pretty demanding. Even in older cars, there are huge differences when it comes to energy consumption. The number of electronic devices, the climatic conditions, or the type of traffic (e.g., around town vs. highway) can all play a role. We provide ranges of batteries to meet all customer needs.

Battery technology	Start-Stop	Cold Cranking Amps	Cycle life compared to conventional batteries	Type of Vehicle Application
AGM must be replaced with AGM.			Enhanced	**Amaron Jade AGM** All start-stop applications + modern cars with superior needs.
EFB can be replaced with EFB or AGM start stop batteries.			Improved	**Amaron Onyx EFB** Cars with entry-level start –stop power needs.
CONVENTIONAL Batteries should always be replaced with the equivalent battery to meet the car's needs. You need more power because of extreme climate conditions or more electronic devices? AGM or upgrade within our SLI product range.	—		●	**Non Start Stop PRO-FLO.** Conventional cars with Superior Power needs.
	—		●	**GO** Cars with lower power needs.

***Beware of the dangers of replacing AGM or EFB with a conventional battery.**

Serious performance and safety risks might occur when a conventional battery is fitted to a start-stop vehicle. This applies even if the start-stop function will be deactivated by the driver.



Loss of warranty



Failure of comfort functions



Start-Stop function will not work properly



Acid spillage can cause damage to other engine parts



Overcharging may cause the battery to become hot and rupture

AMARON®
LASTS LONG, REALLY LONG.

JADE AGM BATTERIES

WHAT SETS OUR BATTERIES APART!

AMARON with Absorbent Glass Mat (AGM) construction



AGM, or Absorbent Glass Mat, is a type of improved lead-acid battery that provides greater power to satisfy today's increased energy demands in cars and start-stop applications. AGM batteries are exceptionally vibration resistant, completely sealed, non-spillable, and require no maintenance. AGM batteries designed with superior safety features. Thus, making them the most suitable for big automobiles, SUVs, vans, and other vehicles with increased energy throughout battery life.

ADVANTAGES OF AGM TECHNOLOGY

- Higher cold cranking performance
- Higher Life
- Zero Maintenance
- Non Spill able/Leak Proof
- Vibration resistant
- Fully sealed battery
- Higher Safety
- No Terminal Corrosion
- Low self discharge
- Fit and forget
- Absorbent glass mat
- Regenerative braking
- Higher Corrosion Resistance
- Faster Recharge
- Recombinant VRLA (valve regulated)
- Long shelf life
- Supports Start Stop system Aids Reduced Fuel Consumption and CO_2 Emissions

FUTURE READY TECHNOLOGIES FOR FUTURISTIC VEHICLES



AGM BATTERY CONSTRUCTION

Polypropylene Container:

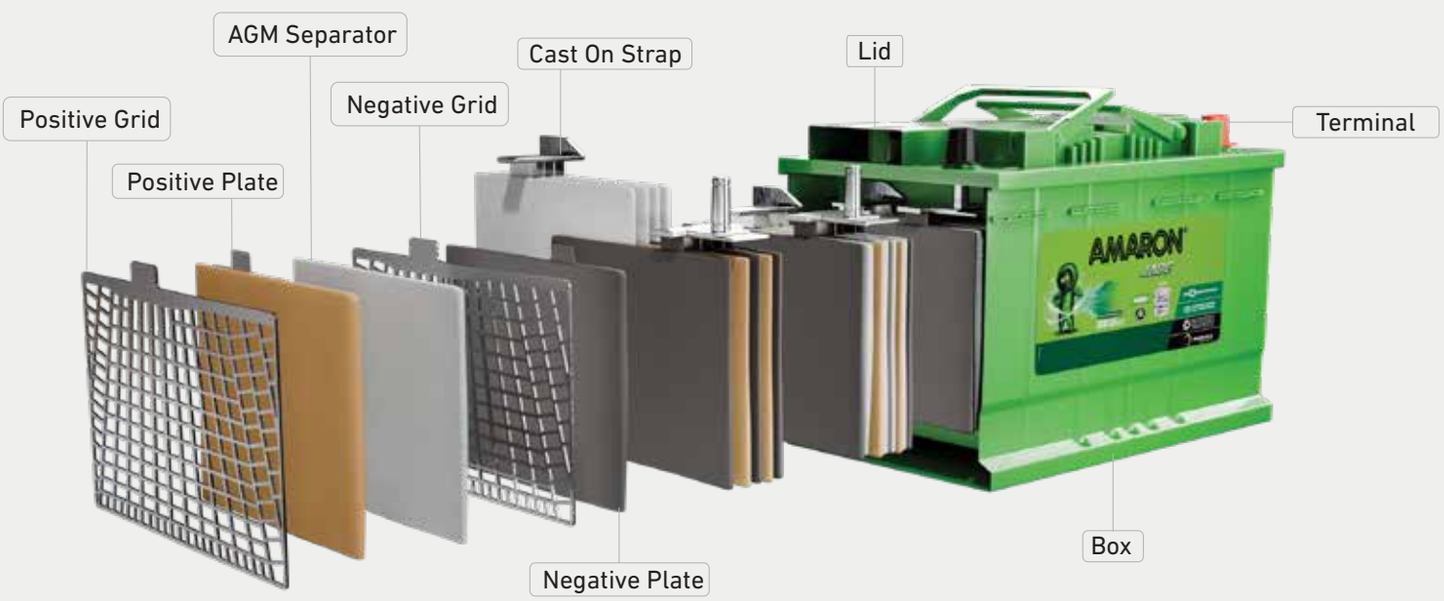
- Made of high quality durable material strengthens to withstand internal pressure

Largest cast on Strap Area:

- Helps in High Vibration resistance minimizing the shedding of Active material

Special Cover Structure assures Saftey.:

- Sealed and Non-Spillable AGM Design eliminated need for frequent Maintenance & Top-Up
- Eliminates emission of Gases due to its recombinant nature



Advance Stamped Grid:

- Constructed with more lead and uniform wire/mesh thickness maximizes current flow and increases charge efficiency
- Dynamic Charge Acceptance: Faster charging and discharging performance
- High Tin calcium alloy ensures highest corrosion resistance
- Low Internal resistance leads to Highest Cranking Power

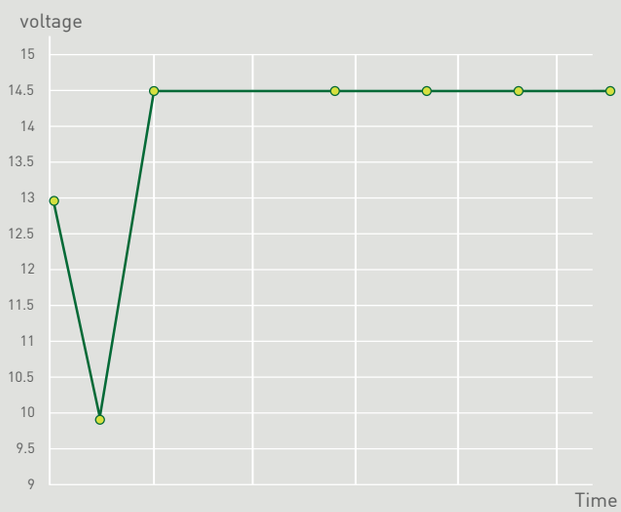
AGM Separator:

- Ultra High Strength glass mat micro-Porous separator absorbs electrolyte eliminates acid spills & terminal corrosion
- Optimized component compressed packing reduces loss of active material
- Highly efficient and maximum charge reaction due to even distribution of electrolyte

LOAD DIAGRAM

Battery in conventional vehicle

The battery requirements from charge/ discharge cycles are in the “normal” range.

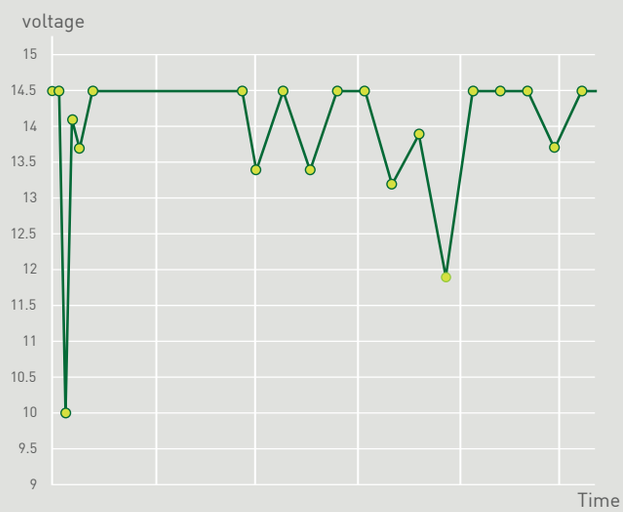


Characteristic

A start operation followed by recharging.

Battery in start-stop vehicle

Start-stop system dramatically altered the load profile. It demands a battery which can withstand high cyclic frequency, ensuring a reliable power supply.



Characteristic

Large number of start operations, resulting in higher load on the battery.

Battery Model	OLD JIS Designation	Ref. AH @ C20	CCA @ -18°C Amps(mm)	RC in mins	Assembly Layout	L (mm)	B (mm)	H (mm)	Terminal	Case Type	Hold Down
50B20L		38	380[SAE]	52		197	129	227	T1	B20	B0
H4-Din 50		50	500	80		207	175	190	T2	LN1/H4	B13
H5-Din 60		60	600	105		242	175	190	T2	LN2/H5	B13
H6-Din 70		70	700	120		278	175	190	T2	LN3/H6	B13
H7-Din 80		80	800	140		315	175	190	T2	LN4/H7	B13
H8-Din 95		95	900	160		353	175	190	T2	LN5/H8	B13

ONYX EFB (ISS)

WHAT SETS OUR BATTERIES APART!



EFB Batteries are Conventional Flooded Lead Acid batteries in design with improved specification and Performance. EFB Batteries features with increased cyclic durability and an improved charge acceptance by current and designed with various changes to battery construction and materials.

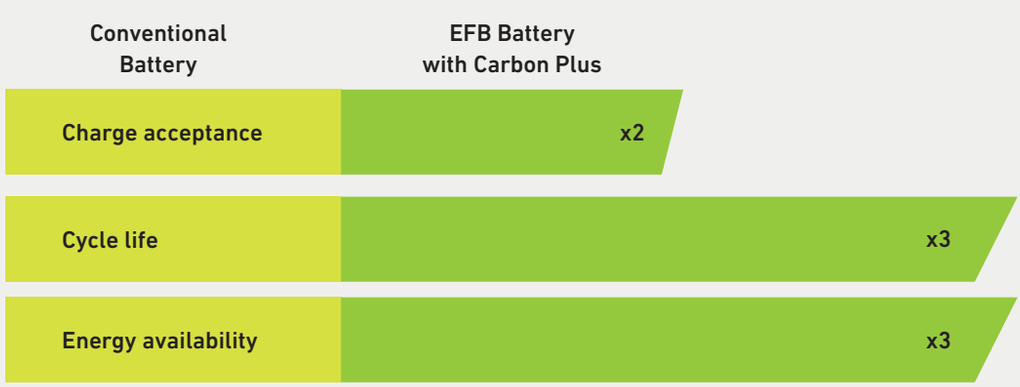
EFB Batteries offers a cost effective solution for entry Level Idle Stop Start (ISS) vehicles where the battery will not be operating at such a low State of charge (SOC) as an AGM Battery. Entry Level Vehicles already have lower CO_2 emission than High performance and advanced specification vehicles which requires AGM Battery.

Dynamic Charge Acceptance (DCA) to accept charge immediately after starting the engine and from energy produced by Regenerative Breaking system is twice that of a conventional flooded battery.



EFB TECHNOLOGY

- High dynamic charge acceptance over battery lifespan
- Extra energy and extra life for vehicles with ISS systems
- Optimised regenerative braking functionality in vehicles with Start-Stop systems - ensuring maximum fuel savings and less CO_2 emissions
- Optimal operation in engine compartment
- Duraframe technology
- Large number of vehicle models coverage from a limited number of SKUs
- Long shelf life



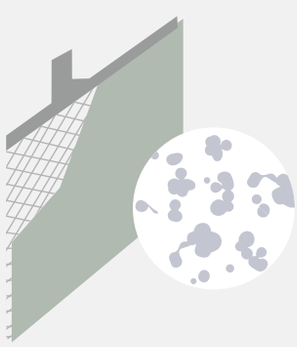


CARBON PLUS IN EFB BATTERIES

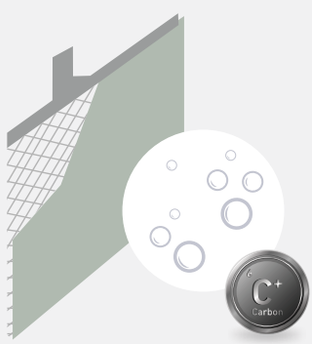
Idle Stop Start system vehicles have multiple stops and starts everyday due to short runs, engine switch off when vehicle is not moving causing frequent discharges. In city driving, there will be higher number of charge discharge cycles and normal batteries without longer duration of charging are prone to sulphation and acid stratification, damaging battery life span.

Sulphation

During life span of batteries lead sulphate particles formed during chemical reaction creates a layer on the negative plates. This lead sulphate layer delays recharging process, as current supplied is mainly used for dissolving the lead suphate.



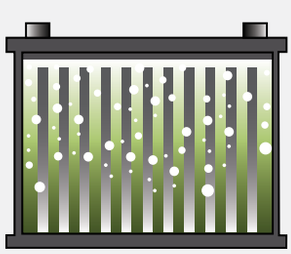
Without Carbon Plus
The plates are covered with sulfate



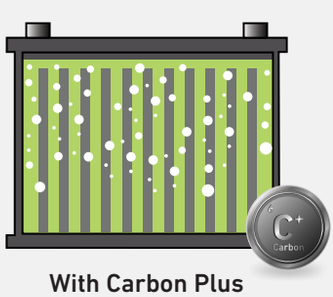
With Carbon Plus
Sulfate is reduced due to Carbon Plus Technology

Acid Stratification

Lead Sulphate particles formed on the plates during discharging, starts dissolving into electrolyte during charging and turn into sulphuric acid. This is heavier than the electrolyte, so it sinks to the bottom, creating a range of negative effects, including reduced capacity. Stratification also occurs if the battery charge is regularly around 80-90%, which is common in EFB batteries which are fitted in Idle start stop system.



Without Carbon Plus
Causing uneven acid concentration at plate surface level



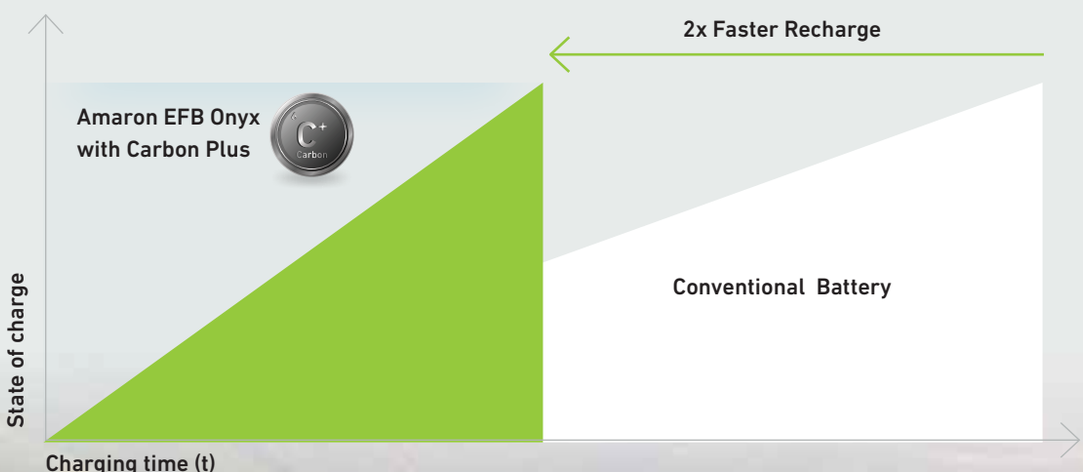
With Carbon Plus
Controlled gassing mixes the electrolytes and reduces stratification. Even distribution of acid in the electrolyte boosts controlled gassing and reduces stratification

Amaron EFB batteries are added with unique carbon additives which dissolves the lead sulphate particles from negative plate at higher speed. This causes faster recharging of the battery hence safeguards from sulphation and acid stratification-This boost Dynamic Charge Acceptance (DCA).

The carbon additives also supports controlled gassing during recharging , which keeps the electrolyte mixed with even distribution of sulphuric acid and further reduces stratification.

THE BENEFITS OF CARBON PLUS

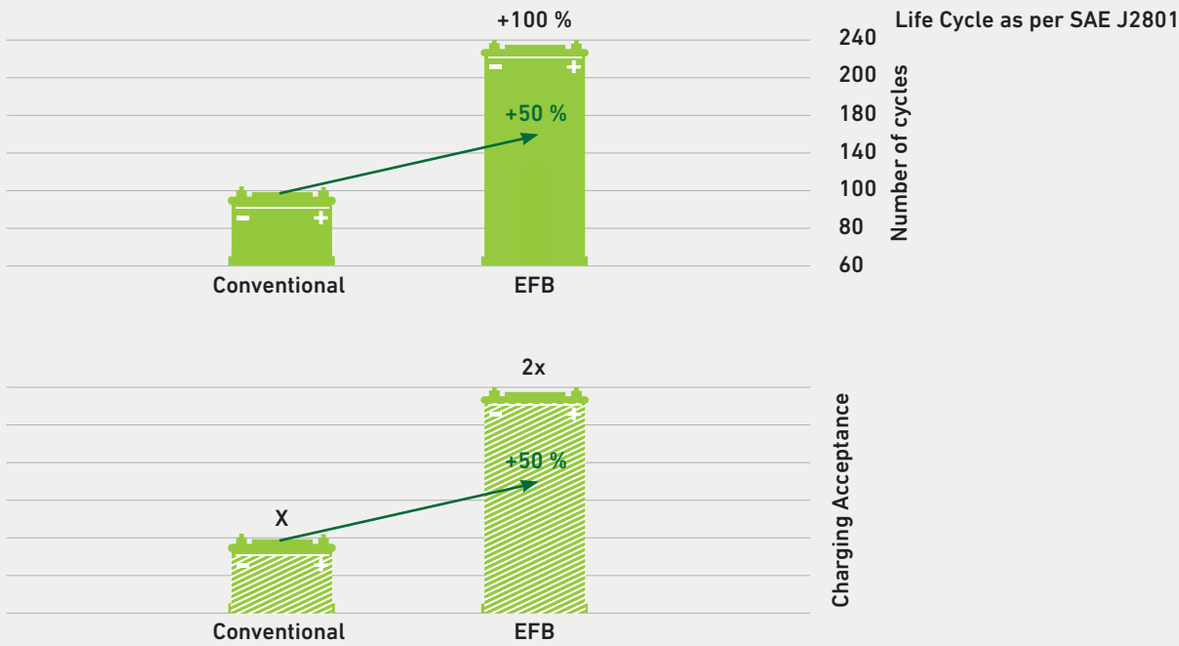
- Improved charge acceptance
- Reduced acid stratification
- Faster recharging
- Enhanced cycling endurance



Lab tests show that it takes significantly less time to recharge an Amaron EFB Onyx Carbon Plus Battery than a conventional battery under the same conditions.



ONYX EFB (ISS) FEATURE



Battery Model	OLD JIS Designation	Ref. AH @ C20	CCA @ -18°C Amps(mm)	RC in mins	Assembly Layout	L (mm)	B (mm)	H (mm)	Terminal	Case Type	Hold Down
M42-60B20R		40	400	70		197	129	227	T1	B20	B0
M42-60B20L		40	400	70		197	129	227	T1	B20	B0
N55-80B24L		55	500	95		238	129	227	T1	B24	B0
N55-80B24LS		55	500	95		238	129	227	T12	B24	B0
N55-80B24R		55	500	95		238	129	227	T1	B24	B0
Q85-115D23L		70	660	130		232	173	225	T2	D23	B13
Q85-115D23R		70	660	130		232	173	225	T2	D23	B13
S95-130D26L		75	720	150		260	173	225	T2	D26	B0
S95-130D26R		75	720	150		260	173	225	T2	D26	B0
T110-145D31L		95	850	180		306	173	225	T2	D31	B0
T110-145D31R		95	850	180		306	173	225	T2	D31	B0
L3-DIN 70L		70	760 (EN)	150		278	175	190	T2	H6	B13

PEARL MARINE BATTERIES

WHAT SETS OUR BATTERIES APART!



At the heart of every marine vessel lies an intricate network of electrical systems, powering essential functions ranging from propulsion to navigation, communication, and onboard amenities. In this intricate ecosystem, Amaron Pearl marine batteries serve as the lifeblood, providing the energy needed to ignite engines, illuminate cabins, operate electronics, and navigate uncharted waters. Unlike their terrestrial counterparts, Amaron Pearl marine batteries are engineered with deep cycle design to withstand the harsh elements and demanding conditions of the open sea.

THE ULTIMATE DUAL-PURPOSE BATTERIES

Perfect for boats, trailers, and more, Amaron Pearl batteries deliver both starting power and ongoing energy. Designed to function as both deep cycle and cranking marine batteries, they reliably start engines and power devices like trolling motors. Experience unparalleled versatility of dual purpose Amaron Pearl batteries!

FEATURES

Deep Cycle
The hallmark of marine batteries lies in their deep-cycle design, tailored to deliver sustained power over extended periods.

Durable Under Tough Conditions
Thriving amidst the ceaseless tumult of marine environments, Amaron Marine batteries exhibit remarkable resilience to vibration, shock, and corrosion

Robust Poly Design
With its strong poly design, this product is tough, handles vibrations well, resists bulging, and is easy to install anywhere.

Higher Cyclical Life
Designed to withstand repeated recharge & discharge cycles

Dual-Purpose
Amaron Pearl Marine batteries are ideal to provide to provide enough power to start an engine as well as to provide overall energy.



SUPERIOR MCA (MARINE CRANKING AMPS) RATED BATTERIES

Amaron Pearl batteries boast exceptional MCA ratings. The MCA rating is the maximum current a battery can sustain for 30 seconds at 32°F (0°C) while maintaining a voltage of 7.2 volts. This MCA rating is one-third higher than the corresponding Cold Cranking Amps (CCA) rating.

STARTING POWER:

The MCA rating measures the battery's starting power, indicating how much power it can deliver in a short burst.

OPTIMAL PERFORMANCE:

Choose Amaron Pearl batteries with a higher MCA rating for optimal performance.

BATTERY MODEL APPLICATIONS:

Battery Model	Application
MR-BH M24-70R	Starts engines upto150 hp with basic electrics
MR-BH M27-90R	Starts engines upto 350 hp with basic & optional electrics
MR-BH M31-105R	Starts engines 350 hp + with basic & optional electrics

BASIC ELECTRICS

- Control Instruments
- Standard Lighting
- Bilage Pump
- UHF/VHF Radio

OPTIONAL ELECTRICS

- Extra Lighting
- GPS
- Fish Finder
- Auto Pilot
- Trim Tabs
- Fridge

Battery Model	AH @ C20	CCA @ -18°C Amps	MCA @ -0°C Amps	RC in mins	L (mm)	B (mm)	H (mm)	Terminal	Case Type	Hold Down
MR-BH M 24-70R	70	600	750	115	260	173	225	Dual SAE & Stud	M24	B13
MR-BH M 27-90R	90	750	950	145	306	173	225	Dual SAE & Stud	M27	B13
MR-BH M 31-105R	105	900	1080	195	332	172	238	Dual SAE & Stud	M31	B13

AMARON®
LASTS LONG, REALLY LONG.

HIWAY- HEAVY DUTY COMMERCIAL VEHICLE BATTERY



BATTERIES THAT MEAN BUSINESS



If you want your commercial vehicle to be as professional as yourself, look no further than Amaron. Our batteries are subjected to rigorous performance tests so that they deliver without fail every time. After all, there is no room for interruption or breakdown in a hyper competitive business environment. Your battery needs to be fighting fit in the harshest of terrains and in extreme weather conditions. Amaron's advanced zero maintenance batteries make sure that they will go the extra mile without any fear.

FEATURES

- High Cranking Power
- Factory Charged- Ready to Use
- Highest Reserve Capacity
- Improved Safety
- High Heat Tolerance
- Long Life
- Vibration Resistance

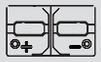
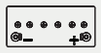
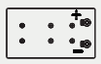
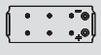
AMARON®

LASTS LONG, REALLY LONG.

DATA SHEET

AMARON HIWAY & HARVEST

ALL-NEW DURA FRAME ADVANCED STAMPED GRID

Battery Model	OLD JIS Designation	Ref. AH @ C20	CCA @ -18°C Amps(mm)	RC in mins	Assembly Layout	L (mm)	B (mm)	H (mm)	Terminal	Case Type	Hold Down
HCV620D31R		80	550	160		306	173	225	T2	D31	B0
NT700H29R		100	700	180		364	176	234	T2	H29	B0
NT115E41R (N100R)		100	700	195		410	176	234	T2	E41	B0
NT115E41L (N100RL)		100	700	195		410	176	234	T2	E41	B0
NT150F51R (N120R)		120	750	240		505	182	237	T2	F51	B0
NT800D04R		130	800	240		540	222	240	T2	DO4	B0
NTX00D04R		150	1000	300		540	222	240	T2	DO4	B0
NTX00D04L		150	1000	300		540	222	240	T2	DO4	B0
NT165D04R		165	1050	325		540	222	240	T2	DO4	B0
NT180D04R		180	1150	355		540	222	240	T2	DO4	B0
NT180D04L		180	1150	355		540	222	240	T2	DO4	B0
245H52R(N200)		200	1200	400		520	277	247	T2	H52	B0
DINB 170L	67018	170	1000 (EN)	338		513	222	221	T2	B	B0
DINB 180L	67019	180	1100 (EN)	361		513	222	221	T2	B	B0
DINC 200R	70027	200	1200 (EN)	409		517	275	241	T2	C	B0
DINC 200L	70027	200	1200 (EN)	409		517	275	241	T2	C	B0
DINC 225L	72527	225	1300 (EN)	469		517	275	241	T2	C	B0

AMARON®

LASTS LONG, REALLY LONG.

THE JOY OF RIDING STARTS FROM THE GENTLE PUSH OF THE SELF-START

Amaron Two Wheeler Batteries

INSTANT CRANKING THAT REVS UP ALL CAPACITY ENGINES

Zero Maintenance Corrosion Resistance Long Service Life



AMARON®
LASTS LONG, REALLY LONG.

ANY WEATHER. ANY TERRAIN. HASSLE-FREE STARTING

ROBUST BATTERY TECHNOLOGY FOR ALL TYPES OF 2 WHEELERS

Whether you're an adventure sports enthusiast or a regular commuter, riding becomes a pleasure only when the engine is powered to life without a hitch, any time, every time. As one of the world's largest battery manufacturers, Amara Raja understands this universal need of two-wheelers - be it a sports bike or a scooter - only too well.

Amaron is a Sealed AGM Battery manufactured with state-of-art Lead Acid Battery Technology. Its availability in a wide array of power options makes it a battery with global appeal, ideal for any two wheeler model anywhere in the world.



High Corrosion Resistance
Lowest corrosion due to durable alloy materials and molecular realignment.

Vibration Resistance
Integrated material reduces vibration extends the battery life, making it highly durable and reliable

AMARON®
LASTS LONG, REALLY LONG.

STURDY AND RESILIENT TO THE CORE

Hi-Cranking Power
Unique internal design delivers higher cracking power, allowing for an instant vehicle start

Zero-Maintenance
Fit and forget, designed for reliable performance during the entire life

Long Service Life
Oxygen recombination principle prevents water loss and MSG grid making process increases battery life.

Spill-Proof
Absorbed glass mat, makes the battery spill-proof unlike conventional batteries.

AMARON®

LASTS LONG, REALLY LONG.

OXYGEN RECOMBINATION PRINCIPLE

Increased efficiency and extended life span

Possible only in Sealed AGM Batteries, this recombination process reduces the amount of water lost from the battery while also preventing the build-up of pressure inside the battery. This makes Amaron ideally the best batteries for high powered engines that require long-term backup power.

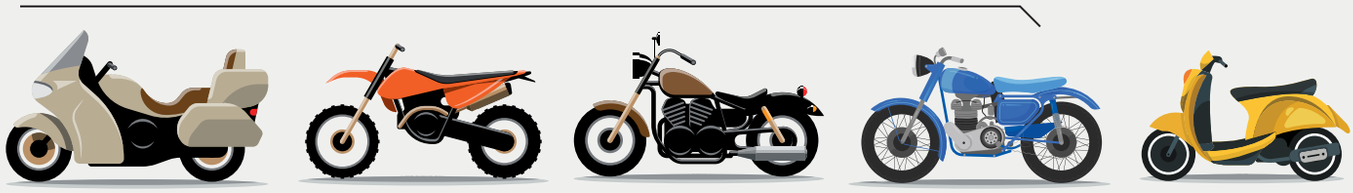
ULTRA-LIGHT WEIGHT YET HIGHLY DURABLE

Ease of handling and maintenance

Light weight yet highly durable battery cover and container are made of eco-friendly, non-corrosive PPCP material. The significant light weight feature enables easy handling of the batteries while also contributing to reduced weight of the two wheeler



Amaron Batteries – Instant Power for Every Engine Type



Cruiser Bikes | Sports Bikes | Adventure Bikes | Standard Bikes | Scooters

AMARON®
LASTS LONG, REALLY LONG.

MADE FOR INSTANT CRANKING - WHEREVER YOUR RIDE TAKES YOU

Blazing summers or chilly winters, heavy rains or snowfall, Amaron two-wheeler batteries ensure your engine comes to life without the least struggle. Whichever part of the world you are in and whatever the 2 wheeler you drive, be sure of the highest levels of performance in any climatic conditions.

Tested in some of the world's harshest terrains for higher cranking performance, Amaron never lets you down. Be it a dirt road or a hilly or forest area, just crank the engine with ease and rev up through any kind of terrain with ultimate confidence.

Battery Model	Assembly Layout	Volt	Capacity @ 10hrs	L	W	H
ETX2.5L		12	2.5	80	70	105
ETX5L		12	5	120	60	130
ETX9R		12	9	137	75	139
ETX7R		12	7	152	59	132
ETZ4L		12	3	113	70	85
ETZ5S		12	3	113	70	85
ETZ5L		12	4	113	70	105
ETZ7L		12	6	113	70	130
ETZ9R		12	8	150	87	105
ETZ14R		12	12	150	87	145

CERTIFICATIONS EARNED, TRUST GAINED

YOUR ASSURANCE OF QUALITY

OCCUPATIONAL HEALTH & SAFETY
OHSAS 18001:2007
CERTIFIED

QUALITY
ISO 9001:2015
CERTIFIED

ENVIRONMENT
ISO 14001:2015
CERTIFIED

International Automotive Task Force
IATF 16949:2016

ENERGY
ISO 50001:2018
CERTIFIED

HEALTH & SAFETY
ISO 45001:2018
CERTIFIED





AMARON®

LASTS LONG, REALLY LONG.

LONG LIFE FOR EVERY VEHICLE



* Modification of the catalogue is not permitted.
* Images shown in the catalogue are indicative, actual images may differ and for representational purposes only.
* Amara Raja's design improvement is a continuous process. As a result, specifications may change without prior notice.

LONG LASTING PERFORMANCE FOR EVERY VEHICLE



AMARON®

LASTS LONG, REALLY LONG.

Amara Raja Energy & Mobility Limited

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